



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,925	08/31/2001	Olga Valerievna Koshkina	STL3054	2253

7590 11/10/2003

Mitchell K. McCarthy  
Seagate Technology LLC  
10321 W. Reno  
Oklahoma City, OK 73127

EXAMINER

KAPADIA, VARSHA A

ART UNIT PAPER NUMBER

2651

DATE MAILED: 11/10/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/944,925

Applicant(s)

KOSHKINA ET AL.

Examiner

Varsha A Kapadia

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-30 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2651

### **Information Disclosure**

The information disclosure statement (IDS) submitted on August 31, 2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### **Rejection Under 35 U.S.C. 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

- The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6, 9- 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith (6,384,995).

With regards to claims 1 and 17, Smith discloses a method for analyzing a data storage apparatus

(see fig.a ) containing a transducer (108) positionable adjacent a storage media (102), the method comprises steps of detecting a defective region (see fig.8 element 804); and

assigning a category for the defective region by combining a plurality of readback signals as claimed (see abstract, fig.8 elements 806 and 807 and for further detail refer to the detailed description). Smith also discloses data storage is sealed with a top cover (see fig.1 elements 109, and 104, col.4 lines 22-28).

With regards to claims 2-3, Smith discloses a step of defining a profile for at least 3 categories as defined in the claim (see col.3 lines 11-34 wherein the comparison of the readback signal against profiles does not exceed 100 times).

With regards to claims 4, 10 and 18, Smith defines that a category has an identifier indicating the defects in the magnetic recording layer (scratch/corrosion) (see col.8 lines 22-25).

With regards to claims 5, 9 and 20, Smith further discloses steps of deriving an estimate of how much of the defective region is characterized by a less-than nominal, intermediate field strength; and indicating the defective region is unreliable if the estimate is lower than a predetermined threshold (see col.8 lines 22-25 and col.10 lines 45-59).

With regards to claims 6 and 19, Smith discloses steps of receiving read signals from the consecutive tracks as claimed (see fig.8 and col.9 lines 35-55) and generating a graphical image of the defective region from the received signals (see figs.5A-6B and disclosure thereof).

With regards to claims 11-12 and 21-22, Smith discloses step of modifying list of bad sectors as claimed (see col.10 lines 51-59).

Art Unit: 2651

With regards to claims 13-14 and 23-24, Smith discloses steps of assigning a value of each of the defective region for which category is assigned (classifying) (see fig.8 element 807) and reworking ...(see col.10 lines 31-59).

With regards to claims 15-16, Smith further discloses that the steps as defined in with respect to claims 1 and 13-14 are applicable upon a multiplicity of other data storage device as claimed (see col.5 lines 4-26 and col.10 lines 52-59; wherein Smith discloses capability of rejecting drive that contains larger defects).

Claims 25-30, is drawn to the apparatus of using the corresponding method recited in claims 1- 6 and 9-24. Therefore apparatus claims 25-30 corresponds to method claim 1-6 and 9-24 and are rejected for the same reasons of anticipation as used above.

#### Prior Art Cited

Reference to Yong (6,628,465) cited as of interest.

#### Allowable Subject Matter

Claims 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As described above in this office action prior art of record reads on the claimed limitations recited in claims 1 and 6 including a step of generating a graphical image of the defective regions from the signals read from the consecutive track, however, prior art of record fails to further define steps of visually recognizing the image as a likeliest one of a predefined set of known defect types each having a name and assigning the name of the likeliest type as the category for the defective region; and the limitations recited in claim 8.

Art Unit: 2651


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Varsha A Kapadia whose telephone number is (703) 305-4198. The examiner can normally be reached on Mon-Wed from 6:30 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



VK



DAVID HUDSPETH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600